

**A LIST OF SHELLS COLLECTED IN WESTERN FLORIDA AND HORN ISLAND, MISSISSIPPI.**

BY E. G. VANATTA.

During February and March, 1902, Mr. Clarence B. Moore collected the following species of shells while on an archæological expedition in western Florida. Most of the specimens were picked up on the shore. The numbers after the species correspond to the numbers of the localities, as follows:

1. Alligator Harbor, Franklin county, Florida.
2. St. George's Sound, Franklin county, Florida.
3. Indian Pass, Apalachicola Bay, Calhoun county, Florida.
4. St. Joseph's Bay, Calhoun county, Florida.
5. Crooked Island, off St. Andrew's Sound, Calhoun county, Florida.
6. St. Andrew's Bay, Washington county, Florida.

Those numbered 7 are a collection of shells from Horn Island, Mississippi, presented to the Academy some years ago. It is hoped that this list, which well covers the western coast of non-peninsular Florida, will be a useful appendix to Prof. W. H. Dall's Bulletin 37 of the U. S. National Museum. I wish to thank Prof. W. H. Dall, Mr. C. W. Johnson and Dr. H. A. Pilsbry for their assistance in identifying some of the species of this collection.

Class **PELECYPODA.**

<i>Ostrea virginica</i> Gmel.	2, 4, 5.	<i>Arca secticostata</i> Reeve.	4, 5.
<i>Anomia simplex</i> Orb.	4, 5, 7.	<i>Glycimeris americana</i> Defr.	3.
<i>Plicatula gibbosa</i> Lam.	4, 5, 7,	<i>Leda acuta</i> Conr.	3, 4, 5.
<i>Pecten gibbus irradians</i> Lam.	1,	<i>Cardita floridana</i> Conr.	1, 5.
	3, 4, 5, 6, 7.	<i>Cuna dalli</i> Van.	3, 4, 5.
<i>Atrina rigida</i> Dillw.	4.	<i>Crassinella lunulata</i> Conr.	3, 4, 5.
<i>Atrina serrata</i> "Sol." Sowb.	4.	<i>Anisodonta elliptica</i> Reel.	5.
<i>Mytilus exustus</i> L.	5.	<i>Erycina floridana</i> Van.	5.
<i>Modiolus tulipus</i> L.	1, 4, 5.	<i>Lucina chrysostoma</i> Phil.	4, 5.
<i>Modiolus demissus</i> Dillw.	4.	<i>Phacoides trisulcatus</i> Conr.	5.
<i>Arca ponderosa</i> Say.	1, 3, 4, 5, 7.	<i>Phacoides nassula</i> Conr.	4, 5.
<i>Arca transversa</i> Say.	3, 5, 7.	<i>Phacoides floridanus</i> Conr.,	4, 5.
<i>Arca incongrua</i> Say.	1, 3, 4, 7.		7.
<i>Arca campechiensis</i> Gmel.	1, 3, 4,	<i>Phacoides radians</i> Conr.	4, 5, 7.
	7.	<i>Phacoides crenella</i> Dall.	3, 4, 5, 7.

- Phacoides amiantus* Dall. 4, 5, 7.  
*Divaricella quadrisulcata* Orb. 5.  
*Diplodonta punctata* Say. 5, 7.  
*Chama arcinella* L. 4.  
*Cardium robustum* Sol. 3, 4, 5, 6, 7.  
*Cardium isocardium* L. 1, 4, 5.  
*Cardium muricatum* L. 3, 4.  
*Cardium serratum* L. 3, 4, 5, 7.  
*Cardium mortoni* Conr. 6.  
*Venus mercenaria* L. 1, 4.  
*Venus mercenaria mortoni* Conr. 3, 5, 7.  
*Venus cribraria* Conr. 4, 5, 7.  
*Venus cancellata* L. 4, 5, 7.  
*Venus pygmæa* Lam. 4, 5, 7.  
*Venus cuneimeris* Conr. 4, 5.  
*Gemma gemma purpurea* Lea. 4.  
*Parastarte triquetra* Conr. 4, 5.  
*Meretrix simpsoni* Dall. 4, 5.  
*Meretrix cucymata* Dall. 7.  
*Meretrix conradiana* Dall. 4, 5.  
*Meretrix texasiana* Dall. 3.  
*Callista nimbosea* Sol. 1, 4, 5, 6, 7.  
*Dosinia discus* Rve. 1, 4, 5, 7.  
*Petricola pholadiformis* Lam. 3, 4, 5.  
*Donax variabilis* Say. 1, 3, 4, 5, 6, 7.  
*Donax obesa* Orb. 3, 4, 5, 7.  
*Tagelus divisus* Spengl. 3, 5.  
*Tellina magna* Spengl. 5.  
*Tellina alternata* Say. 1, 3, 7.  
*Tellina tenera* Say. 3.  
*Tellina polita* Say. 4.  
*Tellina consobrina* Orb. 5, 7.  
*Tellina lintea* Conr. 5, 7.  
*Tellina pauperata* Orb. 4, 5.  
*Macoma constricta* Broug. 3.  
*Macoma brevifrons* Say. 7.  
*Macoma tenta* Say. 5.  
*Tellidora cristata* Recl. 5.  
*Strigilla flexuosa* Say. 4, 5, 7.  
*Mctis intastriata* Say. 4.  
*Abra æqualis* Say. 3, 4, 5, 7.  
*Ervilia concentrica* Gld. 4, 5.  
*Semicle bellastrata* Conr. 4, 7.  
*Spisula solidissima similis* Say. 1, 3, 4, 5, 7.  
*Mulinia lateralis* Say. 3, 4, 5, 7.  
*Labiosa canaliculata* Say. 1, 3, 7.  
*Panopea bitruncata* Conr. 5.  
*Ensis directus* Conr. 5.  
*Barnesia costata* Say. 3.

## Class SCAPHOPODA.

- Dentalium disparile* Orb. 4, 5.

## Class GASTROPODA.

- Tornatina candeii* Orb. 4, 5.  
*Cylichnella bidentata* Orb. 3.  
*Bullus occidentalis* A. Ad. 5.  
*Melampus coffea gundlachi* Pfr. 6.  
*Terebra dislocata* Say. 4, 5.  
*Mangilia cerina* K. and S. 4, 5.  
*Cancellaria reticulata* L. 5.  
*Oliva literata* Lam. 1, 3, 4, 5.  
*Olivella mutica* Say. 4.  
*Olivella pusilla* Marr. 4, 5.  
*Marginella apicina* Menke. 5.  
*Fasciolaria tulipa* Lam. 4, 5.  
*Fulgur pyrum* Dillw. 4, 5.  
*Fulgur perversa* L. 4, 5.  
*Melongena corona* Gmel. 4.  
*Tritonidea cancellaria* Conr. 7.  
*Nassa acuta* Say. 4, 5.  
*Columbella avara* Say. 5.

*Columbella obesa* Say. 4, 5.  
*Murcx fulvescens* Sowb. 3.  
*Purpura hæmastoma* L. 7.  
*Pyramidella crenulata* Holmes.  
 4, 5.  
*Turbonilla conradi* Bush. 3, 4, 5.  
*Cassis inflata* Shaw. 4, 5, 6.  
*Pyrula papyratia* Say. 3, 4, 5.  
*Strombus pugilis* L. 4, 5.  
*Strombus pugilis alatus* Gmel.  
 4, 6.  
*Seila adamsii* H. C. Lea. 5.  
*Cæcum pulchellum* Stimp. 5.  
*Cæcum cooperi* Smith. 5.  
*Meioceras nitida* Stimp. 5.

*Litorina irrorata* Say. 4, 6.  
*Rissoina browniana* Orb. 5.  
*Crepidula fornicata* L. 3, 4, 5, 6.  
*Crepidula plana* Say. 4, 5.  
*Crepidula aculeata* Gmel. 3.  
*Natica pusilla* Say. 4, 5.  
*Polinices duplicatus* Say. 1, 3, 4,  
 5, 7.  
*Sigaretus perspectivus* Say. 1, 3,  
 4, 5.  
*Turbo castaneus crenulatus* Gmel.  
 5, 6.  
*Teinostoma cryptospira* Verr. 5.  
*Vitrinella mooreana* Van. 5.

The following species are believed to be new:

*Vitrinella mooreana* n. sp. Fig. 1.

Shell umbilicate, discoidal, with about  $4\frac{1}{2}$  whorls. The first whorl is yellow and smooth, the remaining are white and sculptured with heavy spiral cords, of which there are 5 on the penultimate whorl and 7 on the body whorl above the periphery. The granulate interstices are about as wide as the spiral cords. The base is sculptured with very faint spiral striæ. The aperture is oblique and suborbicular, with the columella broadly thickened.

Alt. 1.2, diam. 2.75; aperture alt. 1, diam. 1 mm.

This species was collected by Mr. Clarence B. Moore on the gulf side of Crooked Island, off St. Andrew's Sound, Calhoun county, Florida. The types are No. S4,611, A. N. S. P. It is named in honor of its collector, Mr. Moore. The species seems to be near *V. multistriata* Verr., but differs in having 7 strong spiral cords above the periphery and a nearly smooth base. It differs from *V. striata* Orb. in having a thickened columella.

*Erycina floridana* n. sp. Fig. 2.

Shell small, white, thin, subquadrate, with the ends nearly evenly rounded, almost equilateral, beaks low, surface sculptured with irregular lines of growth. Hinge with a central pit and rather large lateral

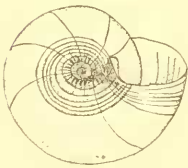
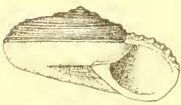


Fig. 1.

teeth, four being in one valve and two in the other. The adductor scars are rather large, connected by an irregular pallial line.

Alt. 5, length 8.25, thickness of 1 valve 1.75 mm.

This species was collected by Mr. Clarence B. Moore on the gulf side of Crooked Island, Florida. The types are No. 83,876, A. N. S. P. Prof. W. H. Dall kindly compared it with his species from the Florida Pliocene. It is very near *E. kurtzii* Dall, but seems to be more delicate, with stronger laterals and more evenly rounded ends.

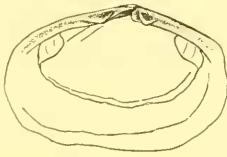


Fig. 2.



Fig. 3.

*Cuna dalli* n. sp. Fig. 3.

Shell subtriangular, inequilateral, purple in the center becoming lighter near the edge, surface sculptured with concentric costæ, ventral margin smooth, adductor muscle scars rather large, hinge strong and broad. The right valve has three cardinals, the anterior is long and low, the central large and triangular, the posterior short and narrow, situated at the edge of the large ligament pit. In the left valve the anterior cardinal is long and low, the curved central is smaller than the central of the opposite valve, the posterior cardinal is a small ridge at the edge of the ligament. Pallial line entire.

Alt. 2.5, length 2.4, thickness of one valve .8 mm.

The types of this species are No. 84,612, A. N. S. P. They were collected by Mr. Moore at Indian Pass, Apalachicola Bay, Florida; he also collected the same species at St. Joseph Bay and on the gulf side of Crooked Island, off St. Andrew's Sound, Florida.

This species is more rounded and inequilateral than *Parastarte triquetra* Conr., and lacks the crenulation on the ventral margin. It has a broader hinge than *Gemma gemma* Totten, but the surface sculpture is very similar. It is more inequilateral than *Cuna concentrica* Hedley, but the hinge is similar. *Cuna particula* Hedley is more rounded and truncate, with a slightly different hinge.